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STREETS & STEELE
Suite 355
13831 Northwest Freeway
Houston, TX 77040

EXAMINER

NGUYEN, SON T

ART UNIT	PAPER NUMBER
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3643

DATE MAILED: 06/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/075,096

Applicant(s)

WHITCOMB, CARL E.

Examiner

Son T. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-65 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

SON T. NGUYEN
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

1. In view of the Appeal Brief filed on 4/19/04 and the Board decision on 2/9/06, PROSECUTION IS HEREBY REOPENED. A new ground of rejection is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

The Director of Technology Center 3600 or designee has approved of reopening prosecution by signing below:



PETER M. POON
SUPERVISORY PATENT EXAMINER

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

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3. **Claims 1-48,63-65** are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Appellant's specification did not clearly explain what prevents the root tips to just stop in the material (18) and not continue to re-route along the sidewall or in the space between material (16) and material (18). In addition, the bonding between materials (16 & 18) appears to be any glue (see page 7, 2nd paragraph of Applicant's specification), therefore, unless the glue is superglue to stick the two materials so strongly together that the roots cannot push the material (16) and grow in the space therebetween, the roots will grow through material (18) (with some roots trapped therein similar to fig. 5 prior art) and travel along the space between material (16) and material (18). This is the same concept as that of Reynolds et al. (3080680) as employed below in the rejection. It does not appeared from Applicant's specification that what is causing the roots not to grow in between material 16 & 18, especially the bonding between these two materials is merely any glue, adhesive, laminate, etc.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. **Claims 1,2,15,18,19,29,30,46-48** are rejected under 35 U.S.C. 102(b) as being anticipated by Reynolds et al. (3080680).

For claim 1, Reynolds et al. disclose a root growth barrier comprising a layer of a root-tip-trapping material 18 bonded to a layer of a root-impenetrable material 60. Note, although the roots will grow between the material 18 and material 60, there are some roots (the smaller ones) that will be trapped in material 18, which is demonstrated by fig. 5, Prior Art, of Applicant's drawing. Also, the claim language does not state that all of the roots are to be trapped in the root-tip-trapping material.

For claim 2, Reynolds et al. further disclose the root-impenetrable material is water-impenetrable (col. 5, lines 5-7,38-44, polyethylene and polypropylene are water impenetrable material, and air is trapped between sheet 60 and sidewall 18, thus, if air is trap, water is trapped).

For claim 15, Reynolds et al. disclose wherein the root-tip-trapping material is bonded onto the root-impenetrable material by a method selected from gluing, laminating and combinations thereof (col. 5, lines 53-57,64-70, col. 6, lines 3-6).

For claim 18, Reynolds et al. disclose wherein the root-impenetrable material is a polymer sheet (col. 5, lines 5-7).

For claim 19, Reynolds et al. disclose wherein the root-impenetrable material selected from polyethylene and polypropylene (col. 5, lines 5-7).

For claim 29, Reynolds et al. disclose an apparatus, comprising: a root-impenetrable container 60 for growing a plant; and a root-tip-trapping material 18 bonded to an inner wall of the container. See also the above for explanation.

For claim 30, Reynolds et al. disclose wherein the container is formed into a shape selected from cylinders, squares, rectangles, cubes, blocks, hexagons, octagons, ovals, pentagons, triangles and circles.

For claim 46, Reynolds et al. disclose a method of growing a plant in a pot comprising the steps of: disposing a bilayer root growth barrier consisting essentially of a root-tip-trapping inner material 18 bonded to a root-impenetrable material 60; disposing a growth medium adjacent to the root growth barrier (inherent in Reynolds); and adding a plant to the growth medium (inherent in Reynolds). See also the above for explanation.

For claim 47, Reynolds et al. disclose a method of growing a plant in-ground, comprising the steps of: placing growth medium in a container comprising a bilayer consisting essentially of a biodegradable root-impenetrable outer material 60 bonded to an inner root-penetrable material 18; and adding a plant to the growth medium. Note, col. 2, lines 19-25 and col. 3, lines 20-34 teach in ground usage of the container. See also the above for explanation.

For claim 48, Reynolds et al. disclose a root growth barrier, consisting essentially of: a layer of a root-tip-trapping material 18 bonded to a layer of a root-impenetrable material 60. See also the above for explanation.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 3,25,26,31,32,64,65** are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (as above).

For claims 3 & 65, Reynolds et al. are silent about wherein the root-tip-trapping material comprises greater than 10 or 100 root-tip-trapping elements per square inch. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the root-tip-trapping material of Reynolds et al. being greater than 10 or 100 root-tip-trapping elements per square inch, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect (how many roots one wishes to trap in the material) is achieved involves only routine skill in the art.

For claims 25-26, Reynolds et al. are silent about the root-impenetrable material having a thickness between 2 and 10 mils or 3 and 5 mils. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the root-impenetrable material of Berlitz et al. be between 2 and 10 mils or 3 and 5 mils in thickness, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect is achieved involves only routine skill in the art.

For claims 31-32, Reynolds et al. are silent about the container having a diameter between 2 and 96 inches or 5 and 60 inches. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have container of Reynolds et al. be between 2 and 96 inches or 5 and 60 inches in diameter, since it

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has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect (for accommodating different size plants) is achieved involves only routine skill in the art.

For claim 64, see claim 2 above for explanation.

8. **Claims 4-11,27-28,33-38,42,44,49-53,55-57,59-62** are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as applied to claims 1 & 29 above, and further in view of Reiger (6202348).

For claims 4,8-11, Reynolds et al. are silent about the root-tip-trapping material being a porous fabric, wherein the porous fabric is a spun bonded, needle punched fabric selected from polyester, polypropylene or other olefin fiber or a woven or knitted fabric and is degradable.

Reiger teaches a root barrier in which he employs a spun bonded needle punched porous fabric (col. 8, lines 64-67 and col. 9, lines 1-15). In addition, Reiger disclose polyester (Reiger, col. 9, line 8), polypropylene (Berlit, page 2, lines 1-10) or olefin fiber (Reiger, col. 9, line 7), and a woven fabric for the porous fabric (col. 6, line 50). Furthermore, Reiger teaches the fabric being degradable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a spun bonded, needle punched fabric selected from polyester, polypropylene or other olefin fiber or a woven or knitted fabric and is degradable as taught by Reiger in place of the porous fabric of Reynolds et al., since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious choice, for both material will trap roots.

For claims 5-6, in addition to the above, Reiger teaches the porous fabric having a specific weight per square yard of 4 ounces (col. 9, line 5), which is between 2 and 10 ounces or 4 and 6 ounces. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ the porous fabric of Reiger having a specific weight per square yard of 4 ounces in the barrier of Reynolds et al. as modified by Reiger, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect is achieved involves only routine skill in the art.

For claim 7, Reynolds et al. as modified by Reiger are silent about the porous fabric (polypropylene) having openings between 1/16 and 1/4 inch. It would have been obvious to one having ordinary skill in the art at the time the invention was made to have the openings in the porous fabric of Reynolds et al. as modified by Reiger be between 1/16 and 1/4 inch, since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect (how many roots one wishes to trap in the material) is achieved involves only routine skill in the art.

For claims 27-28, as mentioned in the above, Reiger teaches polyester and other biodegradable material or fiber. Reynolds et al. do not specifically teach biodegradable. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ biodegradable polyester as taught by Reiger as the preferred material for the fiber of Reynolds et al. in order to reduce harm to the environment.

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For claims 33-38,42,44, see the above claims for explanation.

For claim 49, Reynolds et al. teach a root growth barrier comprising a polymer sheet 60 having a surface bonded to a fiber material 18. However, Reynolds et al. are silent about the fiber material being a porous fabric. As explained above, Reiger teaches a root barrier having a porous fabric. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a porous fabric as taught by Reiger in place of the fiber of Reynolds et al., since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious choice, for both material will trap roots.

For claims 50-53,56,57,60-62, see the above claims for explanation.

For claims 55,59, Reynolds et al. as modified by Reiger (emphasis on Reynolds) further teach bonding is done by laminating or adhering (col. 5, lines 53-57,64-70 and col. 6, lines 3-10).

9. **Claim 12** is rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as modified by Reiger as applied to claims 1,4,10,11 above, and further in view of Thomas (5311700).

Reynolds et al. as modified by Reiger are silent about the porous fabric being cotton. Thomas teaches a root growth barrier such as a container for a plant in which he employed cotton for a root-growth resistant material 50 (col. 5, line 11). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ cotton as taught by Thomas as the preferred material for the porous fabric of

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Reynolds et al. as modified by Reiger, since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (to trap and resist root growth) as a matter of obvious design choice.

10. **Claims 13-14,16,41,63** are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as modified by Reiger as applied to claims 1,4 above, and further in view of Berlitz et al. (GB 2073567A).

For claims 13-14,41, Reynolds et al. as modified by Reiger are silent about making the porous fabric opaque or black. Berlitz et al. teach a container that can be used as a root barrier, the container comprising a layer of material that is made opaque or black (page 1, lines 101-105). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the fabric of Reynolds et al. as modified by Reiger opaque or black as taught by Berlitz et al. in order to prevent transmission of harmful light to the roots (Berlitz, page 1, lines 104-105).

For claims 16,63, Reynolds et al. as modified by Reiger are silent about the material 60 being a plurality of layers/strata. In addition to the above, Berlitz et al. teach the outer layer being made of a plurality of layers/strata 12,13. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a plurality of layers/strata as taught by Berlitz et al. for the outer material 60 of Reynolds et al. as modified by Reiger in order to provide structural integrity to the outer material and to assure that the roots will not penetrate through by providing multiple layers.

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11. **Claims 17,21,22,24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as applied to claim 1 above, and further in view of Van der Goorbergh (EP 300578 A3).

For claim 17, Reynolds et al. are silent about the root-impenetrable material being reflective. Van der Goorbergh teaches a seed trough that can be used as a root barrier, the trough having two layers 5,6 that are coated with a reflective material (page 2, col. 2, lines 7-16). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a reflective material as taught by Van der Goorbergh on the root-impenetrable material of Reynolds et al. in order to reflect light and thus prevent harm to the roots.

For claims 21 & 22, Reynolds et al. are silent about aluminum foil (which is a metal foil). In addition to the above, Van der Goorbergh further discloses aluminum foil (which is a metal foil) on the outer layer 6 of the plant container to reflect harmful light away from the plant (see abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ aluminum foil as taught by Van der Goorbergh as the preferred material for the root-impenetrable material of Reynolds et al. in order to reflect harmful light away from the plant.

For claim 24, Reynolds et al. are silent about a white polymer sheet. In addition to the above, Van der Goorbergh further discloses the layers or sheets are made white (col. 2, line 55 and col. 3, line 1). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the polymer sheet of Reynolds et

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al. white as taught by Van der Goorbergh in order to reflect harmful light away from the plant (col. 2, lines 54-55).

12. **Claims 20,23** are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as applied to claim 1 above, and further in view of Flasch, Jr. (5852896).

For claim 20, Reynolds et al. are silent about the root-impenetrable material being metal. Flasch, Jr. teaches a plant container that can be used as a root barrier, the container comprising a root-impenetrable material 28 that is made out of metal (col. 12, line 38). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ metal as taught by Flasch, Jr. as the preferred material for the root-impenetrable material of Reynolds et al., since it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use (strength and durability features of metal) as a matter of obvious choice. In re Leshin, 125 USPQ 416.

For claim 23, Reynolds et al. are silent about using a UV inhibitor to provide UV light stability. In addition to the above, Flasch further teaches using a UV inhibitor to provide UV light stability (col. 12, line 45) in the preferred material for his root-impenetrable layer 28 to block out harmful UV light or radiation. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a UV inhibitors to provide high UV stability as taught by Flasch, Jr. in the root-penetrable layer of Reynolds et al. in order to block out harmful UV light or radiation.

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13. **Claims 39-40** are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as modified by Reiger as applied to claims 29,36 above, and further in view of Flasch, Jr. (as above).

See claim 23 for explanation.

14. **Claim 43** is rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as applied to claim 29 above, and further in view of Kalpin (3094810).

Reynolds et al. are silent about the container being assembled by sewing. Kalpin teaches a container for plant that can be used as a root barrier, the container is made out of semi-rigid sheets of material such as paper or cloth that are sewed together to form the container (col. 1, lines 62-71). It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ a container made up of semi-rigid sheets that are sewed together as taught by Kalpin in place of the container of Reynolds et al. in order to provide a container that is easy to store and reduce shipping costs (col. 1, lines 13-15 of Kalpin).

15. **Claim 45** is rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as modified by Reiger as applied to claims 29,33 above, and further in view of Billings (6223466).

Reynolds et al. as modified by Reiger are silent about the container being a production pot in pot-in-pot production. Billings teaches a planting system that can be used as a root barrier, the system is a production pot-in-pot in which a primary pot 20 is installed in a soil and a second pot 12 is inserted into the primary pot for purpose of growing a tree or shrub (see abstract). It would have been obvious to one having

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ordinary skill in the art at the time the invention was made to have the container of Reynolds et al. as modified by Reiger be a production pot in pot-in-pot production as taught by Billings in order to allow a user with the versatility of placing and removing the inner pot from the outer pot whenever desired and to interchanged from one location to another location by replacing one inner container from an outer container with another similar inner container (see abstract of Billings).

16. **Claims 54,58** are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. as modified by Reiger as applied to claim 49 above, and further in view of Van der Goorbergh (as above) and Berlitz et al. (as above).

See the above claims for explanation. Van der Goorbergh teaches employing white color sheet and Berlitz et al. teach employing black color for container.

Response to Arguments

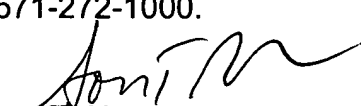
17. Applicant's arguments with respect to claims 1-65 have been considered but are moot in view of the new ground(s) of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is 571-272-6889. The examiner can normally be reached on Mon-Thu from 10:00am to 5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 571-272-6891. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Son T. Nguyen
Primary Examiner
Art Unit 3643

stn